

174185

WILLOUGHBY & HOEFER, P.A.

ATTORNEYS & COUNSELORS AT LAW

1022 CALHOUN STREET (SUITE 302)

P.O. BOX 8416

COLUMBIA, SOUTH CAROLINA 29202-8416

MITCHELL M. WILLOUGHBY
JOHN M.S. HOEFER
ELIZABETH ZECK*
PAIGE J. GOSSETT
RANDOLPH R. LOWELL
K. CHAD BURGESS
NOAH M. HICKS II**

AREA CODE 803
TELEPHONE 252-3300
TELECOPIER 256-8062

May 25, 2005

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VIA HAND DELIVERY

The Honorable Charles Terreni
Chief Clerk/Administrator
South Carolina Public Service Commission
101 Executive Center Drive
Columbia, South Carolina 29210

RE: South Carolina Pipeline Corporation - Annual Review of the Purchased Gas
Adjustments and Gas Purchasing Policies;
Docket No. 2005-6-G

Dear Mr. Terreni:

Enclosed for filing, on behalf of South Carolina Pipeline Corporation, is the Direct Testimony of Paul V. Fant, Michael P. Wingo, Samuel L. Dozier, John S. Beier, and Thomas R. Conard. Please accept the original and twenty-five (25) copies of each for filing. Additionally, please acknowledge your receipt of these documents by file-stamping the extra copies that are enclosed and returning them to me via my courier.

By copy of this letter, I am serving all other parties of record with a copy of the enclosed Direct Testimony and attach a certificate of service to that effect.

If there are any questions regarding this matter, please do not hesitate to contact me.

Very truly yours,

WILLOUGHBY & HOEFER, PA


K. Chad Burgess

KCB/amw
Enclosures

The Honorable Charles Terrini

May 25, 2005

Page 2 of 3

cc: Wendy B. Cartledge, Esquire (via hand delivery w/ enclosures)
Catherine D. Taylor, Esquire (via hand delivery w/ enclosures)
James N. Horwood, Esquire (via overnight delivery w/ enclosures)
Paul W. Dillingham, Esquire (via overnight delivery w/ enclosures)
Scott Elliott, Esquire (via hand delivery w/ enclosures)
Larry Loos (via overnight delivery w/ enclosures)
Tommy Miller (via overnight delivery w/ enclosures)

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET No. 2005-6-G

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COMMISSION

IN RE:)
)
Annual Review of the Purchased Gas)
Adjustments (PGA) and Gas Purchasing)
Policies of South Carolina Pipeline)
Corporation.)
_____)

CERTIFICATE OF SERVICE

This is to certify that I, an employee of the law firm of Willoughby & Hoefer, P.A., on behalf of South Carolina Pipeline Corporation, have caused to be served this day one (1) copy of the **Direct Testimony of Paul V. Fant, Michael P. Wingo, Samuel L. Dozier, John S. Beier, and Thomas R. Conard**, via hand delivery, upon the persons named below at the addresses set forth:

Florence P. Belser, General Counsel
Wendy B. Cartledge, Esquire
South Carolina Office of Regulatory Staff
1441 Main Street, Suite 300
Columbia, SC 29201

Scott Elliott, Esquire
Elliott & Elliott, P.A.
721 Olive Street
Columbia, SC 29205

This is to further certify that I have caused to be served this day one (1) copy of the **Direct Testimony of Paul V. Fant, Michael P. Wingo, Samuel L. Dozier, John S. Beier, and Thomas R. Conard**, via overnight delivery, upon the persons named below at the addresses set forth:

(Continued . . .)

James N. Horwood, Esquire
Pablo O. Nüesch, Esquire
Spiegel & McDiarmid
1333 New Hampshire Avenue, NW, Suite 1100
Washington, DC 20005-4798

Mr. Larry Loos
Mr. Thomas Sullivan
Black & Veatch Corporation
11401 Lamar
Overland Park, KS 66211

Mr. Tommy Miller
Director, Gas Division
Department of Public Utilities
1016 Russell Street
Orangeburg, SC 29116

Paul W. Dillingham, Esquire
Spencer & Spencer, P.A.
226 East Main Street, Suite 200
Rock Hill, SC 29731

Andrea M. Wright
Andrea M. Wright

May 25, 2005
Columbia, South Carolina

**DIRECT TESTIMONY OF
PAUL V. FANT
ON BEHALF OF
SOUTH CAROLINA PIPELINE CORPORATION
DOCKET NO. 2005-6-G**

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Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION.

A. My name is Paul V. Fant, and my business address is 105 New Way Road, Columbia, South Carolina 29224. I am President and Chief Operating Officer for South Carolina Pipeline Corporation ("SCPC" or "Company").

Q. PLEASE DESCRIBE YOUR EDUCATION AND BUSINESS EXPERIENCE.

A. I have a Bachelor of Science Degree in Electrical Engineering from North Carolina State University. After graduating from college in 1975, Duke Power Company hired me as a Junior Engineer. In 1979, I joined South Carolina Electric & Gas Company ("SCE&G") and held various positions at the V.C. Summer Nuclear Station over the next six years.

In 1985, I became SCE&G's Manager of Customer Services for the Metro Columbia Area and, from 1986 to 1992, I was General Manager of Customer Relations for the Metro Charleston Area. In 1992, I became Executive Assistant to the Senior Vice President of SCE&G's Retail Electric Group and in 1996, I became General Manager of Support Services and Transit/Fleet Operations. Later in 1996, I was named Vice President, Support Services, for SCE&G. In February 1998, I became Executive Vice President for Operations for SCPC, and in 2004, I was named President and Chief Operating Officer for SCPC.

1 **Q. WHAT ARE YOUR DUTIES WITH SCPC?**

2 A. As President and Chief Operating Officer for SCPC, my corporate
3 responsibilities include, among other things, oversight of the operation of SCPC's
4 intrastate natural gas transmission system including maintenance and construction
5 projects. Additionally, I am also responsible for the overall reliability of the
6 system, which includes ensuring that the system is capable of providing safe and
7 reliable service for our customers.

8 **Q. WHAT IS THE PURPOSE OF THIS PURCHASED GAS ADJUSTMENT**
9 **("PGA") PROCEEDING?**

10 A. By Order No. 87-1112, dated October 5, 1987, the South Carolina Public
11 Service Commission ("Commission") instituted an annual PGA review of SCPC's
12 gas purchasing policies and practices. These PGA reviews are conducted to
13 determine the prudence of SCPC's gas purchasing policies and practices during
14 the previous year or period under review and to determine if SCPC properly
15 applied its tariff in recovering its gas costs. It should be noted that in every PGA
16 review, the Commission has found that SCPC's gas purchasing policies and
17 practices were prudent and that gas costs were properly recovered under its tariff
18 in accordance with the Commission's directives.

19 In this PGA proceeding, the Commission will hear from personnel who
20 implement SCPC's gas purchasing practices and policies and who address tariff
21 issues on a day-to-day basis. Michael P. Wingo, General Manager of Gas Supply
22 & Capacity Management, will discuss SCPC's gas purchasing practices, gas

1 supply and capacity, including interstate storage. SCPC's Vice President of
2 Customer Service and Market Development, Samuel L. Dozier, will discuss
3 SCPC's customers' needs as well as the Industrial Sales Program-Rider ("ISP-R").
4 John S. Beier, Gas Analyst, will discuss SCPC's hedging program, and Thomas R.
5 Conard, SCPC's Assistant Controller, will discuss gas cost recovery.

6 **Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY.**

7 A. The purpose of my testimony is to describe SCPC's system from an
8 operating standpoint. I will discuss the principal facilities that comprise the
9 system, including the capacity of the system for serving SCPC's customers. I will
10 also discuss the construction projects we have completed in the last several years,
11 which have increased the capacity, reliability, and operating flexibility of SCPC's
12 system.

13 **Q. PLEASE DESCRIBE SCPC'S SYSTEM FROM AN OPERATIONS**
14 **STANDPOINT.**

15 A. For the twelve-month period ending December 31, 2004, SCPC operated a
16 high-pressure, intrastate natural gas system consisting of approximately 1,820
17 miles of transmission pipeline, which provides natural gas, either directly or
18 indirectly to 39 of South Carolina's 46 counties. The Company receives gas from
19 the interstate pipelines operated by Southern Natural Gas Pipeline ("Southern")
20 and Transcontinental Pipeline ("Transco"). In fact, SCPC is Southern's largest
21 customer downstream of Atlanta. SCPC's principal receipt point from the

1 Southern system is at Aiken and its principal receipt point from Transco is at
2 Grover.

3 In addition to Southern and Transco, SCPC also has the ability to receive
4 gas from a third interstate pipeline – SCG Pipeline, Inc. (“SCG”). SCPC receives
5 gas from SCG on an interruptible basis through a receipt point in Jasper County.

6 **Q. PLEASE DESCRIBE THE COMPRESSION FACILITIES SCPC**
7 **OPERATES.**

8 A. SCPC operates compressor stations at Aiken Southern, Aiken North,
9 Grover, and Camden. These compressor stations use gas-powered turbines to
10 move gas into and through SCPC’s system and to raise the pressure of gas within
11 the Company’s lines. Located on these sites are a total of twenty-nine (29), 1,050
12 horsepower compressors. These compressors allow the Company to increase the
13 throughput of the system, to regulate the pressure on the system, and to regulate
14 the amount of gas stored in the system through a concept called “line pack.”

15 Through the Aiken Southern station, SCPC can use the compression
16 capability to whichever route has the greatest need – south to Charleston, east to
17 Columbia, northeast to Bethune, or to the Clinton – Newberry service area. This
18 provides SCPC with great flexibility and operational control characteristics.

19 **Q. WHAT LIQUIFIED NATURAL GAS (“LNG”) FACILITIES DOES SCPC**
20 **OPERATE?**

21 A. SCPC operates LNG facilities at Bushy Park, South Carolina, near North
22 Charleston, and at Salley, located in western Orangeburg County. These facilities

1 allow SCPC to store natural gas in a liquid form and inject vaporized gas into
2 SCPC's system when needed. The LNG facilities are used primarily as a
3 mechanism to help meet peak loads on the system and as a backup supply of gas in
4 emergency situations.

5 As Mr. Wingo will testify to in greater detail, SCPC's management
6 analyzes and considers the supply and interstate capacity aspects of its business on
7 an on-going basis in order to provide safe, reliable, and economical natural gas
8 service to South Carolina. All of the variables related to the growth of our state
9 and the demand on SCPC's system must be balanced with corresponding supply
10 and capacity needs.

11 **Q. WHAT ARE THE CAPACITIES OF THE LNG FACILITIES?**

12 A. The Bushy Park facility has the capability of converting natural gas into a
13 liquid, a process known as liquefaction. It can store up to 980,000 Mcf (thousand
14 cubic feet) of LNG. The Salley facility has the capability of storing up to 900,000
15 Mcf of trucked-in LNG. At the end of the review period, LNG storage volumes at
16 SCPC's Bushy Park and Salley facilities were 920,911 Mcf and 811,569 Mcf,
17 respectively. While these facilities have the "nameplate" capability to vaporize
18 150,000 Mcf/day, we use them to provide an LNG peaking service with a
19 Maximum Daily Withdrawal Quantity ("MDWQ") of 105,000 Mcf/day.

20 **Q. HOW IS LIQUEFACTION HANDLED FOR THESE FACILITIES?**

21 A. Salley does not possess the ability to liquefy natural gas. Therefore, in
22 order to avoid the expense of an additional liquefaction facility, both LNG

1 facilities rely on the liquefaction facilities at Bushy Park. During the liquefaction
2 season, LNG is transported via truck from Bushy Park to Salley.

3 **Q. WHEN DID THE BUSHY PARK LNG FACILITY BEGIN OPERATING?**

4 A. The Bushy Park facility began operating in 1976 to provide additional
5 capacity to the system in general and to provide an additional source of gas supply
6 for Charleston. Until 1984, Charleston was served by a single 10-inch pipeline
7 from Bowman south. Over the years, however, the Bushy Park LNG facility has
8 provided an important reliability function for the pipeline system as a whole.

9 **Q. WHAT STEPS HAS SCPC TAKEN IN RECENT YEARS TO IMPROVE**
10 **ITS SYSTEM?**

11 A. Over the years, SCPC has consistently upgraded its system by adding
12 pipeline and compression to meet new demand and to create operating flexibility
13 on its system. One of SCPC's long-term strategic goals has been to reduce its
14 reliance on any one supplier and better balance its system among suppliers.

15 **Q. PLEASE EXPLAIN THE IMPORTANCE OF BALANCED INTERSTATE**
16 **CAPACITY.**

17 A. Historically, the two systems that were merged to form SCPC relied on
18 Southern for approximately eighty-five percent (85%) of their combined supply.
19 The remaining approximately fifteen percent (15%) of supply came from Transco.
20 This reliance was a function of the physical limitations of operating two
21 independent systems, the largest of which (SCE&G) did not have high volume
22 pipeline facilities located near the Transco system.

1 During the 1970s and 1980s, demand for natural gas boomed on Southern.
2 As demand grew on Southern's system, capacity on Southern's system became
3 much tighter and more expensive. As a result, SCPC became increasingly
4 concerned about reliability and throughput on Southern. Because Aiken is literally
5 at the end of Southern's system, any problems or limitations upstream on
6 Southern's system translated into significant problems and limitations for SCPC.
7 Creating a more balanced system has been important to the long-term reliability
8 and economic health of our system and to the value SCPC brings its customers.

9 **Q. HOW HAS SCPC CREATED A MORE BALANCED SYSTEM?**

10 A. In the late 1980s and early 1990s, SCPC was required to meet demand that
11 was growing rapidly in the southern and central part of the system. At that time,
12 the two options were building an LNG facility in the Aiken area or entering into
13 long-term supply contracts with Southern. Because of the configuration of
14 SCPC's system and the location of the load growth, it was not practical to meet the
15 increased demand by increasing our supply from Transco. For the reasons stated
16 above, SCPC was also reluctant to increase its reliance on Southern.

17 However, the construction of an LNG facility was attractive for several
18 reasons. Perhaps the most important reason was the reliability features of LNG
19 service. LNG service is not affected by emergencies on the Company's upstream
20 interstate pipelines that may interrupt flowing gas deliveries. LNG can be
21 available even when flowing gas is limited due to the effects of hurricanes in the
22 Gulf, pipeline freeze-ups due to extreme cold weather, and other events and

1 accidents on the upstream pipelines that serve SCPC. Having significant LNG
2 available on SCPC's system, particularly at Salley, provided a reliability feature
3 that was very attractive. However, there are time limitations associated with
4 capacity available from SCPC's LNG facilities. For example, assuming that
5 storage volumes are at maximum capacity, Bushy Park's capacity will be
6 exhausted within 16 days when operated at an MDWQ of 60,000 Mcf/day, and
7 Salley's capacity will be exhausted within 20 days when operated at an MDWQ of
8 45,000 Mcf/day.

9 The decision to build the Salley facility was also supported by
10 considerations of long-term flexibility and strategic positioning. Choosing to
11 build LNG facilities at Salley allowed the Company to meet demand growth on
12 the southern and central part of its system without further increasing our
13 dependence on Southern. It has also allowed SCPC, through displacement, to
14 choose either Transco or Southern as the source of the additional gas for
15 liquefaction during the summer months when SCPC refills storage.

16 **Q. WHAT IMPROVEMENTS HAS SCPC MADE TO ITS SYSTEM SINCE**
17 **THE SALLEY LNG FACILITY WAS BUILT?**

18 A. Since the construction of Salley in 1992-93, the largest single improvement
19 to the Company's system was the upgrade of its Grover to Bethune facilities. In
20 1995-97, SCPC constructed a new 16-inch high-pressure pipeline along this route
21 (approximately 85 miles). This upgrade was coupled with the construction of a
22 compressor station at Grover with nine (9) new compressor units. At the same

1 time, the Company built a new 12-inch pipeline from Bethune to Florence
2 (approximately 56 miles) to increase deliverability into the rapidly growing areas
3 around Myrtle Beach and to support important industrial loads near Florence.

4 In 1998, SCPC upgraded its Aiken to Gilbert facilities by upgrading
5 twenty-two (22) miles of older 10-inch pipeline to 16-inch high-pressure pipeline.
6 In 2001, the Company reengineered its compressor station at Camden to increase
7 total compression station efficiency to allow bi-directional pumping. SCPC can
8 now use this station to move gas from the northern side of the system (Grover-
9 Bethune) to the southern side (Aiken-Columbia) and vice versa. At the same time,
10 SCPC upgraded the Bethune to Sumter pipeline by adding a new 16-inch high-
11 pressure pipeline. This improvement is important because it removed a bottleneck
12 between the Grover-Bethune side of our system and the Aiken-Columbia side.

13 **Q. HAS THE COMPANY MADE ANY OTHER IMPROVEMENTS TO ITS**
14 **SYSTEM?**

15 A. Yes. In 2003, SCPC improved its system by constructing a new 20-inch
16 steel pipeline extending from Salley to Eastman (approximately 27 miles), which
17 was designed primarily to serve a generation facility operated by Columbia
18 Energy, LLC in Calhoun County. Additionally, in March 2004, SCPC further
19 improved its system by completing construction of a new pipeline called the South
20 System Loop. The South System Loop is located in the southern part of South
21 Carolina and stretches approximately 38.3 miles from SCG's interconnection point
22 in Jasper County to Yemassee in Hampton County. With the South System Loop

1 now in operation, SCPC has the ability to receive gas from SCG. This is
2 significant because SCPC now has access to one of the nation's four existing
3 operational LNG import facilities – Southern LNG Inc. (“Southern LNG”) located
4 on Elba Island, Georgia.

5 **Q. WHAT HAS BEEN THE EFFECT OF THESE IMPROVEMENTS ON**
6 **SYSTEM OPERATIONS?**

7 A. All these improvements have been important to meet the growing demand
8 on SCPC's system. Further, these improvements have also allowed SCPC to
9 create a better balance of supply between Southern and Transco and have allowed
10 the Company access to an additional source of supply located at Southern LNG's
11 facilities on Elba Island.

12 In the last ten (10) years, the Company has attempted to create a system
13 that has the operating flexibility to accept gas either from Southern or Transco as
14 the situation dictates. The upgrading of the Grover delivery point on Transco, the
15 creation of a bi-directional pumping capability at Camden, and the upgrading of
16 the intervening pipelines between Grover and Aiken, all mean that the Company
17 has increased flexibility to serve its needs and those of its customers from either of
18 the two interstate pipelines. Before the merger, the Company was locked into
19 Southern for over eighty-five percent (85%) of its natural gas supply. Now SCPC
20 has the ability to balance supply between the two upstream interstate pipelines on
21 most days, with sixty percent (60%) supply on Southern's system and forty
22 percent (40%) supply on Transco's system. Further, with the completion of the

1 South System Loop, SCPC has access to another supply of gas on Southern's
2 system through a third interstate pipeline thereby providing the Company with
3 increased operating flexibility.

4 **Q. WHAT REQUEST DO YOU HAVE OF THE COMMISSION IN THIS**
5 **PROCEEDING?**

6 A. During the period under review, the Company has prudently managed its
7 business operations and appropriately recovered its gas costs and purchased its gas
8 supplies. Therefore, on behalf of SCPC, I respectfully request that the
9 Commission find that SCPC has recovered its gas costs for the period under
10 review consistent with its tariff and Commission orders and that it has purchased
11 its gas supplies in a prudent and reasonable manner.

12 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

13 A. Yes.

**DIRECT TESTIMONY OF
MICHAEL P. WINGO
ON BEHALF OF
SOUTH CAROLINA PIPELINE CORPORATION
DOCKET NO. 2005-6-G**

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Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION.

A. My name is Michael P. Wingo, and my business address 1426 Main Street, Suite 155, Columbia, South Carolina 29201. I am employed by SCANA Services Company as General Manager – Gas Supply & Capacity Management.

Q. PLEASE DESCRIBE YOUR EDUCATION AND BUSINESS BACKGROUND.

A. I have a Bachelor of Business degree in Marketing from Georgia State University. After graduating from college in 1976, I became employed by Atlanta Gas Light Company (“AGLC”). I held numerous positions during my tenure at AGLC, and in 1998, I became Vice President – Gas Supply for AGLC.

Q. WHEN WERE YOU HIRED BY SCANA AND IN WHAT CAPACITY?

A. In 2000, I joined SCANA Energy Marketing, Inc. in Georgia as Manager of Operations, and in 2001, I was promoted to my current position, General Manager – Gas Supply & Capacity Management, for SCANA Services Company, Inc.

Q. WHAT ARE YOUR DUTIES AS GENERAL MANAGER – GAS SUPPLY & CAPACITY MANAGEMENT?

A. I am responsible for gas supply and capacity management functions. Specifically, my responsibilities include forecasting and planning, procurement of supply and capacity, nominations and scheduling, gas cost accounting, regulatory

1 issues both state and federal concerning supply and capacity issues, and structured
2 marketing and asset management.

3 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

4 A. The purpose of my testimony is to discuss SCPC's portfolio of gas supply
5 service options. Specifically, I discuss the various gas supply options available to
6 SCPC, and the gas supply options implemented by SCPC. I also discuss the
7 transportation and storage assets used by SCPC to provide natural gas services to
8 SCPC's firm customers. Furthermore, I discuss the various types of contracts
9 available to SCPC in establishing its gas portfolio. Finally, I discuss SCPC's
10 capacity release program.

11 **Q. WHAT GAS SERVICE OPTIONS ARE AVAILABLE TO SCPC?**

12 A. There are four gas service options available to SCPC. The gas service
13 options are (1) wellhead gas supply; (2) underground storage; (3) pipeline
14 transportation; and (4) liquefied natural gas ("LNG"). These options are available
15 through the three (3) interstate pipelines that connect to SCPC's system, two on
16 which SCPC holds firm transportation contracts as well as SCPC's on-system
17 LNG facilities.

18 **Q. PLEASE DESCRIBE SCPC'S GAS SUPPLY PORTFOLIO.**

19 A. SCPC's gas supply portfolio includes each service option discussed above,
20 and SCPC combines these services to meet its firm demand under varying weather
21 conditions at reasonable cost. At December 31, 2004, SCPC had fourteen (14)

1 firm wellhead contracts for a maximum daily quantity of 190,000 Dt per day.

2 Spot wellhead purchases are also made as required to meet system needs.

3 **Q. PLEASE DESCRIBE SCPC'S UPSTREAM FIRM TRANSPORTATION**
4 **CAPACITY CONTRACTS AS WELL AS ITS STORAGE CONTRACTS.**

5 A. At December 31, 2004, upstream firm transportation capacity contracts
6 totaled 287,714 Dt per day on the two (2) interstate pipelines that provide service
7 directly to SCPC: Southern Natural Gas Pipeline ("Southern") and
8 Transcontinental Pipeline ("Transco"). This upstream firm transportation capacity
9 is exclusive of 51,050 Dt per day secured to serve Plant Urquhart. Production area
10 underground storage contracts total 6,515,450 Dt of storage capacity. The
11 maximum injection and withdrawal quantity for these contracts total 47,295 Dt per
12 day and 124,978 Dt per day, respectively. Market area underground storage
13 contracts total 86,564 Dt of storage capacity and maximum injection and
14 withdrawal quantity of 506 Dt per day and 3,524 Dt per day, respectively. Exhibit
15 No. __ (MPW-1) provides a summary of the firm transportation and underground
16 storage maximum daily capacity by pipeline supplier.

17 SCPC's on-system LNG facilities have a total storage capacity of 1,880,000
18 Mcf. The maximum liquefaction rate for these LNG plants is 6,000 Mcf and
19 assuming the ability to achieve 100% nameplate capacity, the maximum
20 vaporization rate is 150,000 Mcf. While these facilities have the nameplate
21 capability to vaporize 150,000 Mcf/day, SCPC uses them to provide an LNG
22 peaking service with a planned vaporization of 105,000 Mcf/day.

1 **Q. PLEASE BRIEFLY DESCRIBE THE WELLHEAD GAS SUPPLY**
2 **OPTION.**

3 A. Natural gas wells generally produce natural gas at a constant rate year-
4 round, and SCPC possesses the ability to purchase a supply of natural gas directly
5 from the wellhead. Once SCPC purchases a supply of wellhead gas, the interstate
6 pipeline company then transports the gas directly to SCPC's system. As will be
7 discussed more fully below, SCPC may purchase wellhead gas on a firm or spot
8 basis.

9 **Q. PLEASE BRIEFLY DESCRIBE THE UNDERGROUND STORAGE**
10 **OPTION.**

11 A. After purchase, some wellhead gas is stored in underground facilities
12 located nearer the wellheads or closer to the consumer markets. Depending upon
13 location, these underground facilities are referred to as either production area
14 storage or market area storage. Gas stored in these underground facilities can be
15 withdrawn and delivered to SCPC's system during periods of high demand.
16 Additionally, gas can be injected and withdrawn from these facilities in order to
17 "balance" the system on a daily basis.

18 Typically, underground storage facilities operate on an annual cycle.
19 During the summer months, the storage is filled, and in the winter months, the
20 storage is withdrawn.

21 Underground storage is withdrawn at a much faster rate than it can be
22 refilled. Additionally, as gas in storage decreases, the rate at which gas can be

1 withdrawn decreases. Further, as the quantity of gas in storage increases, it
2 becomes more difficult to inject gas into storage and the rate of injection
3 decreases. Accordingly, both injection and withdrawal quantities ratchet (the
4 reduced ability to withdraw or inject gas into storage) and decline with increasing
5 or decreasing storage inventory levels respectively.

6 **Q. WHERE DOES SCPC TYPICALLY STORE ITS GAS AFTER**
7 **PURCHASE?**

8 A. During the period under review and currently, SCPC maintains contract
9 storage with the interstate pipelines at the following facilities: Southern's storage
10 located in Prarie County, Mississippi (Muldon Storage Field) and Bienville
11 Parrish, Louisiana (Bear Creek Storage Field); and Transco's storage located in St.
12 Landry Parrish, Louisiana (Washington Storage Field); Covington County,
13 Mississippi (Eminence Storage Field); Potter & Clinton Counties, Pennsylvania
14 (Wharton/Leidy Storage Fields known as GSS); and Carlstadt County, New Jersey
15 (LNG Service facility). These storage assets allow the Company to flow
16 additional volumes of gas into SCPC's system when needed. They also allow
17 SCPC to balance wellhead supply with system load requirements, thereby
18 mitigating the potential for imbalance charges. In aggregate, as reflected on
19 Exhibit No. ____ (MPW-2), the Company subscribes to 6,602,014 million Dt of
20 interstate storage capacity.

1 **Q. WHAT INTERSTATE STORAGE ASSETS ARE AVAILABLE TO THE**
2 **COMPANY TO AID IN DELIVERING RELIABLE AND SECURE GAS**
3 **SERVICE TO SOUTH CAROLINA CUSTOMERS?**

4 A. Currently, the Company subscribes to 5,167,164 Dt of storage on
5 Southern's system, with maximum daily withdrawal capability from this storage
6 equaling 104,337 Dt per day at peak storage inventory and maximum daily
7 injection capability of 39,747 Dt per day. On Transco, SCPC subscribes to
8 1,434,850 Dt per day of storage, with a maximum withdrawal quantity of 24,165
9 Dt per day of which 20,641 Dt per day is delivered within firm transportation
10 service and 3,524 Dt per day is in addition to firm transportation service. The
11 maximum daily injection capability into Transco storage is 8,054 Dt per day.
12 Exhibit No. __ (MPW-2) reflects total storage and withdrawal capacity in a table
13 format.

14 **Q. PLEASE DESCRIBE THE LNG OPTION.**

15 A. As Mr. Fant stated in his direct testimony, SCPC has two LNG facilities,
16 one at Bushy Park near Charleston and the other at Salley, in Orangeburg County.
17 The Bushy Park facility can liquefy and store up to 980,000 Mcf of LNG, while
18 Salley can store up to 900,000 Mcf of trucked-in LNG. Salley currently has no
19 liquefaction facilities. Exhibit No. __ (MPW-2) attached hereto sets forth the
20 operational capacity of intrastate LNG storage at Bushy Park and Salley, and
21 shows the combined capacity of these LNG facilities.

1 SCPC's intrastate LNG storage provides service from facilities directly
2 connected to the Company's system and is normally used for needle peak demand,
3 which is the last increment of demand on the coldest hours or days of the winter.
4 This on-system LNG service significantly adds to the reliability and security of
5 gas supply during unfavorable operating conditions that may occur from time to
6 time. For example, SCPC's supply of gas could be unexpectedly interrupted
7 because of a hurricane in the Gulf, or because abnormally cold weather creates a
8 spike in demand which in turn causes equipment malfunctions, well freeze-ups,
9 and other operational abnormalities thereby limiting the supply of gas into South
10 Carolina. In these instances, SCPC could employ the use of its on-system LNG
11 facilities for a limited time to offset any adverse effects caused by an upstream
12 interruption.

13 **Q. WHY DOES SCPC FIND IT NECESSARY TO STORE GAS FOR LATER**
14 **USE?**

15 A. The storage of natural gas is both a beneficial and critical function to the
16 operation of SCPC's gas transmission system. Storage primarily serves as an
17 available supplement of gas to SCPC's existing wintertime wellhead gas supplies.
18 However, storage also serves other useful purposes. For example, storage
19 provides added reliability to the system in the event a disruption occurs in SCPC's
20 wellhead supplies. Moreover, SCPC's on-system LNG storage provides an added
21 measure of reliability for interstate capacity disruptions because interstate pipeline
22 outages have no effect upon LNG storage.

1 Storage also allows SCPC to “balance” daily differences between the
2 quantities of wellhead gas purchased and the quantities of wellhead gas consumed
3 by SCPC’s customers. Additionally, because wellhead gas purchases seldom
4 match a customer’s usage from one day to the next, storage acts as a supplement to
5 wellhead gas purchases in the event a customer’s daily consumption of gas
6 exceeds SCPC’s wellhead gas purchases for that day. Conversely, storage absorbs
7 any unused wellhead gas purchases in the event a customer uses less gas than
8 actual wellhead gas purchases.

9 Finally, in some instances, storage provides a price benefit to SCPC and its
10 customers. For example, by storing gas during summer months when natural gas
11 prices are usually at their lowest, SCPC is able to reduce the quantity of wellhead
12 gas purchases required during the winter when wellhead gas prices are
13 traditionally at their highest due to high demand.

14 **Q. HOW DOES SCPC UTILIZE ITS COMBINED INTERSTATE STORAGE**
15 **AND INTRASTATE LNG TO ASSURE RELIABLE AND SECURE GAS**
16 **SERVICE?**

17 A. There are two dimensions to storage services: peak capability and duration.
18 SCPC uses its storage to address both of these dimensions. Certain storage
19 services are geared toward providing large withdrawal quantities to meet spikes in
20 demand on very cold days but only for a short period of time. The storage
21 services in SCPC’s portfolio of this type include Transco LNG, Transco ESS and

1 both the Bushy Park and Salley LNG facilities located on SCPC's system.
2 Accordingly, these storage services provide SCPC with peak capability.

3 Other storage services are geared toward meeting demand over more of the
4 winter period and not only on the coldest days. The storage services in SCPC's
5 portfolio of this type include Transco WSS, Transco GSS and Southern's CSS.
6 Therefore, these storage services provide SCPC with duration capability. Through
7 the active management of all these assets, SCPC is able to meet the needs of its
8 firm customers on the coldest days of the winter and over the entire winter.

9 **Q. PLEASE DESCRIBE THE AVAILABLE INTERSTATE PIPELINE**
10 **TRANSPORTATION OPTION.**

11 A. SCPC contracts for interstate pipeline transportation capacity on both a firm
12 and interruptible basis.

13 Interstate Firm Transportation ("FT") service permits the customer access
14 to the interstate pipeline transportation capacity on a priority basis. On the other
15 hand, interstate Interruptible Transportation ("IT") service is only available when
16 pipeline FT customers, such as SCPC, are not using their FT capacity. IT service
17 is curtailed when FT customers use their capacity. In other words, FT and IT
18 services use the same physical pipeline capacity, with FT service having priority.
19 SCPC contracts for FT service from the pipelines to assure delivery of natural gas
20 during colder periods when the full transportation capacity of the pipeline is used.

21 The FT service contract demand volume, which provides priority to the
22 interstate pipeline capacity, determines the fixed cost of gas transportation service

1 to SCPC under the interstate pipeline company's rates filed with and approved by
2 the Federal Energy Regulatory Commission. This fixed cost is paid every month
3 regardless of the quantity of gas actually transported by SCPC. Additionally, the
4 interstate pipeline companies have a variable charge associated with each Dt of
5 gas transported by them on behalf of SCPC. This cost increases or decreases
6 monthly depending upon usage.

7 **Q. PLEASE DESCRIBE THE CONSIDERATIONS EVALUATED BY SCPC**
8 **IN ASSEMBLING ITS GAS SUPPLY PORTFOLIO.**

9 A. The Company begins its evaluation by reviewing the gas supply, storage,
10 transportation, and other assets already under contract. Other considerations
11 include such things as geographical delivery limitations, maximum volumes,
12 storage ratchets, must-take volumes, and the cost of the various services. SCPC
13 then compares the resources to the varying weather conditions. Finally, the
14 Company determines whether additional resources are required under the varying
15 weather conditions.

16 **Q. PLEASE DESCRIBE THE PROPOSED USE OF EACH OF THESE**
17 **VARIOUS SERVICES WITHIN THE PORTFOLIO.**

18 A. SCPC places different levels of reliance on its various supply sources based
19 on the time of year in question. In the early part of the winter, SCPC seeks to use
20 its wellhead gas as its principal supply. To the extent that wellhead gas is not
21 sufficient, SCPC then uses the natural gas stored in underground storage facilities
22 in descending order of the duration of their supply capability. Lastly, SCPC uses

1 on-system LNG to meet the last increment of demand on the coldest days or hours
2 of the year.

3 As the winter progresses, this order of usage may be modified under certain
4 circumstances to take advantage of economic opportunities. For example, if South
5 Carolina experiences mild weather during the early part of the winter and storage
6 inventories are relatively high, then underground storage withdrawals may be used
7 instead of wellhead supply.

8 **Q. WOULD YOU ELABORATE FURTHER ON VARIOUS WEATHER**
9 **CONDITIONS CONSIDERED IN THE PLANNING PROCESS?**

10 A. Yes. Winter weather in South Carolina is highly volatile. Temperatures
11 may range from unseasonably warm to frigid cold in a very short period. In
12 addition, weather in a winter month such as January may change dramatically
13 from year to year. Exhibit No. ____ (MPW-3) provides the actual heating degree
14 days for the Columbia area for each January from 1956 through 2005.

15 **Q. BRIEFLY DESCRIBE A HEATING DEGREE DAY.**

16 A. Heating degree day is an industry accepted measure of the potential heating
17 demands that weather conditions create. Simply stated, a heating degree day is a
18 comparative measure of cold weather.

19 In order to calculate the number of heating degree days experienced in a
20 twenty-four (24) hour period, simply subtract the average temperature for a
21 twenty-four (24) hour period from sixty-five (65) degrees Fahrenheit.
22 Accordingly, the result of this calculation is the total number of heating degree

1 days experienced during that particular twenty-four (24) hour period. The greater
2 the number of heating degree days experienced, the colder the weather during that
3 period.

4 **Q. HOW DOES THIS TYPE OF WEATHER VARIATION AFFECT GAS**
5 **SUPPLY REQUIREMENTS?**

6 A. The volatility of winter weather in South Carolina requires SCPC to
7 maintain a flexible gas services portfolio. The portfolio must be capable of
8 meeting both large swings in firm demand from day to day within the winter
9 season, and swings over a winter season, which can range from warmer than
10 normal to colder than normal.

11 **Q. PLEASE DESCRIBE SCPC'S WELLHEAD GAS SUPPLY CONTRACTS.**

12 A. SCPC has entered into firm long-term contracts for gas supply at the
13 wellhead with various producers and marketers. At December 31, 2004, SCPC
14 had fourteen firm wellhead supply arrangements under contract or under
15 negotiation. The contracts are for varying amounts of flowing gas and have
16 varying expiration dates. The prices under most of SCPC's contracts are based on
17 monthly spot prices; however, SCPC has the option to negotiate a monthly price
18 using various benchmark prices. The commodity price represents the value of
19 spot gas in the market and the reservation fee is based on the length of the firm
20 supply commitment and the take flexibility. The volumes under contract represent
21 purchases from major oil and gas producers, independent producers, pipeline

1 affiliates, and national marketers. During the review period, SCPC utilized three
2 types of firm supply contracts: baseload, take-or-release and daily flexibility.

3 **Q. PLEASE DESCRIBE A FIRM BASELOAD CONTRACT.**

4 A. A baseload contract is the least flexible supply contract. Under this
5 contract, the supplier has an obligation to furnish gas and SCPC has an obligation
6 to purchase the contract quantity every day for the term of the contract. Suppliers
7 like these type contracts because they best match the operating characteristics of
8 gas wells which produce gas at relatively consistent levels and do not require
9 much management of the supply source.

10 **Q. PLEASE DESCRIBE FIRM CONTRACTS WITH TAKE-OR-RELEASE**
11 **FLEXIBILITY.**

12 A. Take-or-Release flexibility allows SCPC to know that it has a firm supply
13 of gas across the winter period much like baseload gas contracts but also provides
14 the additional right to not take gas for the month. As an example, a Take-or-
15 Release contract for 10,000 Dts for the period November to March would allow
16 the Buyer to exercise the right to "take" 10,000 Dts for November and for
17 December to "take" 8,000 Dts and "release" the remaining 2,000 back to the
18 supplier and in March to "release" the entire 10,000 Dts back to the supplier.

19 **Q. PLEASE DESCRIBE FIRM CONTRACTS WITH DAILY FLEXIBILITY.**

20 A. Daily flexibility allows SCPC to nominate for delivery a quantity of gas
21 between zero and the daily contract maximum each day. This type of contract
22 allows SCPC to respond to both increases and decreases in demand within the

1 same delivery month. These types of contracts require more management by the
2 supplier again because gas wells produce at relatively consistent levels.

3 **Q. ARE THERE OTHER TERMS ASSOCIATED WITH FIRM GAS SUPPLY**
4 **CONTRACTS?**

5 A. Yes. Beyond take flexibility provisions as described above, gas supply
6 contracts typically include performance standards, penalty provisions, reservation
7 fees, and other miscellaneous terms. Each provision affects the value of the
8 contract in the portfolio.

9 **Q. PLEASE DESCRIBE A SPOT PURCHASE.**

10 A. In a spot purchase, the buyer agrees to buy and the seller agrees to sell on a
11 best effort basis. Generally, if the buyer and seller agree on a volume and price,
12 the sale is effective for a specific period or until either party chooses to end the
13 arrangement.

14 **Q. DOES SCPC MAKE SPOT GAS PURCHASES AS PART OF ITS**
15 **PORTFOLIO?**

16 A. Yes. SCPC has the ability to purchase spot gas from approximately forty-
17 three (43) different suppliers.

18 **Q. BRIEFLY DESCRIBE CAPACITY RELEASE.**

19 A. Southern and Transco offer capacity release through which SCPC possesses
20 the ability to resell all or part of its idle firm transportation capacity to any entity
21 who wants to obtain that capacity by contracting with Southern or Transco.

1 **Q. PLEASE DESCRIBE CAPACITY RELEASE AVAILABLE UNDER FERC**
2 **PROCEDURES.**

3 A. The capacity release market permits SCPC to buy or sell firm interstate
4 pipeline transportation capacity through the interstate pipelines' capacity release
5 bulletin boards. The capacity release mechanism creates an open, competitive
6 market for selling capacity. Shippers acquiring released capacity are billed by and
7 make payments directly to the interstate pipeline for the capacity release. The
8 interstate pipeline then credits SCPC's transportation invoice in the amount of the
9 capacity release payments.

10 **Q. WHAT DETERMINES AVAILABLE CAPACITY RELEASE?**

11 A. The availability of capacity release is influenced by many factors such as
12 the weather and market conditions. If weather is colder than normal, firm supply
13 services will consume more of the portfolio and limit capacity available for
14 capacity release transactions because SCPC's portfolio is assembled to meet the
15 firm demand of its customers. If a cold winter were to occur, SCPC would use
16 essentially all of its firm supply services and then purchase additional quantities of
17 spot gas to meet firm demand. As a result, capacity release credits will necessarily
18 lag as those assets are used to serve native load due to the colder weather.

19 **Q. UNDER WHAT CONDITIONS WILL SCPC RELEASE CAPACITY?**

20 A. SCPC may release capacity when it is not required to meet system supply
21 needs. The level of the credits resulting from capacity release depends
22 significantly on the market for, the duration of, and conditions placed on, the

1 released capacity. SCPC's strategy is to balance the benefits of the revenue
2 contributions from capacity release with SCPC's need to preserve flexibility and
3 reliability to meet system sales requirements. Furthermore, as discussed by Mr.
4 Conard in his direct testimony, credits associated with released firm capacity are
5 included in the monthly weighted average cost of gas ("WACOG").

6 **Q. WHAT REQUEST DO YOU HAVE OF THE COMMISSION IN THIS**
7 **PROCEEDING?**

8 A. During the period under review, SCPC contracted for sufficient supplies of
9 natural gas and provided reliable service to its customers. At no time during the
10 period under review was SCPC forced to curtail gas service to any of its firm
11 service customers. SCPC adequately maintained gas, storage, and transportation
12 assets for its system during the period under review at levels that were prudent and
13 reasonably met the reliability and service needs of the system. It is my opinion
14 that SCPC's management of these assets during the period under review has been
15 prudent and reasonable. Therefore, I respectfully request the Commission find
16 that SCPC's cost for gas purchases and asset management were reasonable and
17 prudent for the period under review.

18 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

19 A. Yes.

South Carolina Pipeline Corporation
Existing Firm Transportation and Storage Contracts

		Maximum Firm Transportation Dt/Day	Production Area Storage Maximum Withdrawal Dt/Day	Market Area Storage Maximum Withdrawal Dt/Day	Expiration Date
Southern	FSNG214-1 FT	44,650			October 31, 2010
	FSNG214-2 FT	22,684			October 31, 2010
	FSNG214-3 FT	5,105			October 31, 2010
	FSNG214-4 FTNN	84,521			October 31, 2010
	FT	34,988			October 31, 2010
			102,100		October 31, 2010
			2,237		
Transco					
	.3704 Z1 - Z5	5,155			December 31 2008
	.3704 Z2 - Z5	7,582			December 31 2008
	.3704 Z3 - Z5	5,762			December 31 2008
	.3704 Z3 - Z5	11,827			December 31 2008
	2.0764 Station 65 (Sunbelt)	55,977			October 31, 2017
	2.0764 Station 85 (Sunbelt)	9,463			October 31, 2017
			15,221		March 31, 2006
			5,420		October 31, 2013
				791	March 31 2013
Company Owned LNG				663	See Note 1
				2,070	October 31, 2016
				153,150	
				156,674	
	Totals	287,714	124,978		

Note 1: Service is being provided under NGA authority

INTERSTATE STORAGE AND LNG STORAGE

I. Interstate Storage

Pipeline	Type	MSQ	MDWQ
Southern	CSS	5,167,164	104,337
Transco	ESS	54,536	5,420
Transco	GSS	43,409	791
Transco	GSS	32,805	663
Transco	WSS	1,293,750	15,221
Transco	LNG	10,350	2,070
Total Transco		1,434,850	24,165
Total Interstate		6,602,014	128,502

II. SCPC On-System LNG (in mcf) SCPC

LNGS	1,880,000	150,000
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Note: All values are stated in Dt, unless otherwise noted

ACTUAL COLUMBIA HEATING DEGREE DAYS

YEAR	JANUARY	YEAR	JANUARY
1956-57	531	1980-81	809
1957-58	766	1981-82	748
1958-59	630	1982-83	739
1959-60	603	1983-84	717
1960-61	728	1984-85	792
1961-62	620	1985-86	731
1962-63	726	1986-87	657
1963-64	640	1987-88	780
1964-66	592	1988-89	469
1965-66	759	1989-90	393
1966-67	554	1990-91	571
1967-68	732	1991-92	574
1968-69	683	1992-93	509
1969-70	823	1993-94	687
1970-71	602	1994-95	596
1971-72	429	1995-96	655
1972-73	618	1996-97	567
1973-74	199	1997-98	512
1974-75	417	1998-99	485
1975-76	662	1999-00	672
1976-77	901	2000-01	645
1977-78	850	2001-02	537
1978-79	664	2002-03	700
1979-80	641	2003-04	661
		2004-05	514
		Average	634
		Minimum	199
		Maximum	901
		Last 30 Years	648

**DIRECT TESTIMONY OF
SAMUEL L. DOZIER
ON BEHALF OF
SOUTH CAROLINA PIPELINE CORPORATION
DOCKET NO. 2005-6-G**

RECEIVED
2005 MAY 25 PM 4:22
SC PUBLIC SERVICE
COMMISSION

Q. PLEASE STATE YOUR NAME AND POSITION.

A. I am Sam Dozier, Vice President, Customer Service and Market Development for South Carolina Pipeline Corporation ("SCPC" or "Company").

Q. PLEASE DESCRIBE YOUR EDUCATION, BACKGROUND AND BUSINESS EXPERIENCE.

A. I am a native of Marion County, South Carolina and graduated from Clemson University with a degree in Mechanical Engineering. I have a Master of Business Administration degree from the University of South Carolina. I have served in a number of positions at SCANA, including SCPC's Vice President for Customer Service and Market Development since 1996.

Q. WHAT ARE YOUR DUTIES WITH SCPC?

A. As Vice President, Customer Service and Market Development for SCPC, my responsibilities include the day-to-day management of SCPC's relationships with its customers and the marketing of new capacity on SCPC's system.

Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY.

A. The primary purpose of my testimony is to discuss with the Commission the Company's Industrial Sales Program-Rider ("ISP-R"), including the benefits that customers on SCPC's system receive as a result of this program. At the

1 conclusion of my testimony, I will ask that the Commission authorize continuation
2 of the ISP-R without modification. However, before I discuss the ISP-R, I will
3 first provide the Commission with a brief overview of SCPC's customers, rates,
4 and contracts, and review the growth of demand on the Company's system.

5 **Q. PLEASE DESCRIBE FOR THE COMMISSION THE CUSTOMERS THAT**
6 **SCPC SERVES.**

7 A. SCPC serves two distinct classes of customers:

8 **Sale for Resale Customers.** SCPC's sale for resale customers are investor
9 owned or governmentally owned gas distribution systems. They resell gas to
10 residential, commercial and industrial customers in their service areas. SCE&G's
11 local gas distribution system is the largest member of this group of customers. In
12 addition, we served 12 publicly owned sale for resale customers, including the
13 York, Chester and Lancaster Natural Gas Authorities (which together comprise the
14 Patriots Energy Group joint municipal gas agency); the Clinton-Newberry Natural
15 Gas Authority, the City of Orangeburg Department of Public Works, and other
16 smaller systems around our service territory.

17 **Industrial Customers.** In addition to our sale for resale customers, we
18 also served approximately 94 direct industrial customers as of December 31, 2004.
19 These are industrial gas users that are connected directly to SCPC's facilities.
20 Examples of major direct industrial customers of SCPC are Voridian (Carolina
21 Eastman) in Calhoun County; several textile plants operated by Milliken &

1 Company in the Upstate; Stone Container in Florence; Nucor in Berkeley County
2 and Darlington County; BP-Amoco in Charleston; and the Bridgestone Firestone
3 plant in Aiken.

4 Also included in this industrial service category is the service SCPC
5 provides to one of the fastest growing sources of demand for natural gas
6 nationally--gas fired electric generation. SCPC serves Progress Energy's gas fired
7 generation stations at Robinson Plant in Hartsville; Columbia Energy's
8 cogeneration facilities in Calhoun County; Duke Power's generation at Buzzards'
9 Roost in Greenwood County; and several gas-fired peaking units owned by
10 SCE&G.

11 **Q. ON WHAT TERMS DOES SCPC PROVIDE SERVICE TO ITS SALE FOR**
12 **RESALE CUSTOMERS?**

13 A. Historically, SCPC has served its sale for resale customers under contracts
14 that specify the daily quantities of gas that SCPC has committed to deliver on a
15 firm basis to meet the customer's peak winter demand. Customers pay a fixed
16 monthly demand charge for each dekatherm ("dt") of this contract demand that
17 they ask SCPC to stand ready to serve.

18 Under these firm contracts, SCPC provides both the delivery of the gas and
19 the gas commodity itself as a single bundled service. To meet its merchant
20 obligation under these contracts, SCPC purchases gas supplies, and related
21 upstream transportation and storage services in interstate markets. SCPC then

1 uses these assets (and its own system) to deliver gas supplies to its customers each
2 month. Under the standard sale for resale contracts, customers pay for the gas
3 they consume each month based on the price SCPC has paid for that gas and the
4 transportation and storage charges related to that gas.

5 SCPC also provides these customers with interruptible service, which they
6 use principally to provide interruptible service to industrial customers located on
7 their systems. However, as a general matter, SCPC's service to its sale for resale
8 customers is characterized by firm service obligations for which customers pay a
9 fixed monthly demand charge that reflects the cost of that service. In his pre-filed
10 direct testimony, Mr. Conard, who is SCPC's Assistant Controller, provides a
11 more detailed explanation of how these contracts work and how SCPC computes
12 and accounts for the charges under them.

13 **Q. PLEASE DISCUSS THE GROWTH OF DEMAND ON THE COMPANY'S**
14 **SYSTEM.**

15 A. Firm demand on our system has continued to grow in spite of the recent
16 challenges to the economy of the United States in general and the Southeast region
17 in particular. As shown on Exhibit No. ____ (SLD-1), firm contract growth on our
18 system grew at an annual average rate of 3.17% during the period January 1, 1991
19 to December 31, 2004.

20 SCPC continually evaluates the sufficiency of the assets required to provide
21 firm service, including upstream interstate transportation capacity. As of

1 December 31, 2004, SCPC maintained firm interstate transportation (“FT”)
2 capacity on our upstream pipelines in the amounts of 108,676 dt/day on the
3 Transco system, and 191,948 dt/day on the Southern Natural system (these totals
4 include both temporary and permanent releases to Resale Firm Transportation
5 customers; however, capacity for SCE&G’s Plant Urquhart is not included).
6 These amounts of FT capacity have been in place since 1997 when SCPC
7 purchased 78,350 dt/day of additional capacity from Transco as a part of
8 Transco’s Sunbelt expansion.

9 A comparison of SCPC’s firm contract demand to its available upstream
10 transportation capacity and LNG storage resources (Bushy Park and Salley) is
11 attached as Exhibit No. ____ (SLD-2). That exhibit indicates that we have firm
12 assets sufficient to provide an 11.80% operating reserve with a maximum duration
13 of 16 days.

14 SCPC is sensitive to the fact that LNG storage capacity is severely time-
15 limited. Further, the Company has experienced growth in its firm load in recent
16 years. Acquiring additional long-term interstate capacity requires a significant
17 amount of lead-time prior to the in-service date of the new capacity, which must
18 be factored into our planning. Therefore, we continually evaluate the sufficiency
19 of available capacity not only to serve current demand needs, but to accommodate
20 anticipated growth of firm contract demand on the system.

1 **Q. EVEN THOUGH FIRM DEMAND HAS INCREASED OVER THE YEARS,**
2 **WHAT CLASS OF CUSTOMERS PROVIDES SCPC WITH ITS**
3 **PRINCIPAL SOURCE OF MARGIN REVENUE?**

4 A. SCPC's principal source of margin revenue (apart from the sale for resale
5 market) is its sales to interruptible industrial customers. While SCPC provides a
6 relatively small amount of firm service to direct industrial customers, the vast
7 amount of its service to industrial customers is interruptible service, and most of
8 this service is under a pricing program called the Interruptible Sales Program –
9 Rider or ISP-R.

10 **Q. PLEASE DESCRIBE THE COMPANY'S ISP-R PROGRAM.**

11 A. The ISP-R program is the principal mechanism that SCPC uses today to
12 retain competitive industrial loads. It was initially authorized in Order 83-222 and
13 has been reviewed by the Commission Staff and reaffirmed in practically every
14 annual PGA proceeding in the intervening 22 years. Moreover, the program has
15 been regularly reviewed by this Commission, and consistently upheld as beneficial
16 for the system and all its customers.

17 Further, the ISP-R allows SCPC to quote competitive gas prices to its
18 customers on a month-to-month basis to allow SCPC to compete with alternative
19 fuels. Under the ISP-R program, SCPC is allowed to allocate specific gas supply
20 purchases to these sales to meet competitive prices.

1 **Q. WHAT ARE THE BENEFITS OF THE ISP-R PROGRAM?**

2 A. During the review period, the ISP-R continued to provide a degree of
3 operational and cost stability for the firm market that cannot be met by any other
4 means. The ISP-R allows SCPC to maintain competitive sales to industrial
5 customers with alternative fuel sources by allocating available gas supplies to
6 them at prices that compete with their alternative fuels. Through this mechanism
7 SCPC is able to make sales to interruptible customers that otherwise might not be
8 made. The ISP-R also gives SCPC the flexibility to curtail the interruptible
9 customers to satisfy firm customer demands when necessary. This arrangement
10 promotes the more efficient use of SCPC's system and helps us recover a portion
11 of our fixed costs through industrial sales, costs that would otherwise be paid by
12 the firm customers.

13 In addition, by retaining service to interruptible customers through the ISP-
14 R, SCPC has more flexibility and can purchase larger volumes of gas supply each
15 month. Through the ISP-R program, SCPC is able to purchase supplies at the
16 beginning of the month for use by interruptible customers that may become
17 available to the firm customers as firm load increases with increasing cold
18 weather. When firm market demands increase significantly, SCPC's priority-of-
19 service curtailment plan allows SCPC to curtail the interruptible customers and
20 make lower-cost gas purchased earlier in the month available for immediate use by
21 the firm customers. In sum, as it is structured today, the ISP-R provides for pricing

flexibility, enhances system reliability, and contributes to system revenues and price stability.

Q. IN PRIOR PGA PROCEEDINGS, HAS THE COMMISSION RECOGNIZED THAT THE ISP-R BENEFITS THE COMPANY'S SYSTEM AND ITS CUSTOMERS?

A. Yes. The Commission has found in practically every PGA order since 1983 that the ISP-R program benefits SCPC's system and its firm customers by making it possible for SCPC to compete effectively in industrial fuel markets. See for example, Order 98-298 at 4; Order 99-712 at 4-5; Order 2000-0434 at 3-4; Order 2001-496 at 3; Order 2002-555A at 3. In addition, as the Commission has found on numerous occasions:

The ISP-R promotes the efficient use of SCPC's facilities, helps to recover a portion of SCPC's fixed costs through industrial sales, allows SCPC to exert purchasing power in interruptible gas markets so that natural gas is obtained at better terms and prices, and provides additional flexibility and reliability to SCPC's system.

Order 2002-555A at 3. *See also* Order 2001-496 at 3; Order 98-298 at 4; Order 99-712 at 4-5; and Order 2000-0434 at 3-4.

In SCPC's most recent PGA proceeding – Docket No. 2004-6-G – the Commission stated,

We find that the ISP-R provides a number of benefits to SCPC, its system, and all its classes of customers, including the sale for resale customers who conduct their own ISP-R. Specifically, the ISP-R allows SCPC to:

- a. Maintain service to industrial customers that would otherwise be lost to the system;
- b. Generate substantial margin revenue needed to support the financial integrity of the system;
- c. Create additional purchasing power and operating flexibility by allowing SCPC to purchase larger volumes of gas supply each month; and
- d. Maintain a substantial pool of gas purchased for interruptible customers that can be used to serve firm customers in times of tight supply.

See Commission Order No. 2004-510 at p.16.

Additionally, the Commission stated, “[m]ost importantly, however, the ISP-R allows SCPC to earn margins from competitive industrial customers which are used primarily to off-set a significant portion of SCPC’s fixed costs; costs that would otherwise be paid by SCPC’s sale for resale customers.” *[Id.]*

Q. WHAT ARE YOU REQUESTING OF THE COMMISSION IN THIS PROCEEDING?

A. In my opinion, the ISP-R continues to provide substantial benefits to all our customers and to the system in general. For the reasons stated above, I respectfully request the Commission to continue the ISP-R program without modification.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

SOUTH CAROLINA PIPELINE CORPORATION
Analysis of Downstream Firm Contract Growth

Year	Firm Contracts dts (000)	Yearly Rate of Growth
1991	260,895	-0.25%
1992	260,250	0.68%
1993	262,017	11.98%
1994	293,399	-2.15%
1995	287,090	4.20%
1996	299,147	2.25%
1997	305,876	-0.27%
1998	305,051	13.38%
1999	345,879	1.89%
2000	352,422	2.33%
2001	360,637	0.04%
2002 ⁽¹⁾	360,772	2.44%
2003 ⁽¹⁾	369,557	-0.32%
2004 ⁽¹⁾⁽²⁾	368,384	

Average Yearly Rate of Growth 3.17%

(1) Does not include 50,540 dts for Urquhart which is directly assigned to SCE&G.

(2) Does not include FT contract of 85,000 dts for Columbia Energy, LLC. If included, the average yearly rate of growth is 5.68%.

SOUTH CAROLINA PIPELINE CORPORATION
Analysis of Upstream Firm Contract Growth

Year	Firm Contracts dts (000)	Yearly Rate of Growth
1991	210,635	0.00%
1992	210,635	-8.05%
1993	193,686	14.76%
1994	222,274	0.00%
1995	222,274	0.00%
1996	222,274	35.25%
1997	300,624	0.00%
1998	300,624	0.00%
1999	300,624	0.00%
2000	300,624	0.00%
2001	300,624	0.00%
2002 ⁽³⁾⁽⁴⁾	300,624	0.00%
2003 ⁽³⁾⁽⁴⁾	300,624	0.00%
2004 ⁽³⁾⁽⁴⁾	300,624	0.00%

Average Yearly Rate of Growth 3.29%

(3) Does not include 51,050 dts for Urquhart which is directly assigned to SCE&G.

(4) Includes 41,248 dts of releases due to RFT contracts.

South Carolina Pipeline Corporation
Available Capacity and LNG Compared to Firm Contract Demand (12-31-2004)

	Reserve Capacity		
	16 Winter Days (dts)	4 Additional Winter Days (dts)	Balance of Winter (dts)
SCPC Firm Interstate Capacity Contracts ^{(5) (6)}	300,624	300,624	300,624
LNG - Bushy Park (Output 60 MMCFD)	62,844	-	-
LNG - Salley Park (Output 45 MMCFD)	48,389	48,389	-
Total Flowing Gas Supply (Including LNG)	411,857	349,013	300,624
SCPC Firm Customers (Demand Contracts @ 12/31/04) ⁽⁷⁾	368,384	368,384	368,384
Reserve dts	43,473	(19,371)	(67,760)
Reserve %	11.80%	-5.26%	-18.39%

Notes:

1. BTU value for Bushy Park and Salley were calculated at the 2004 rate.
2. 980 MMCF of Storage for Bushy Park.
3. 900 MMCF of Storage for Salley.
4. Analysis reflects winter period of 151 days.
5. Does not include 51,050 dts of Urquhart which is directly assigned to SCE&G.
6. Includes 41,248 dts of releases due to RFT contracts.
7. Does not include 85,000 dts of FT contracts.

**DIRECT TESTIMONY OF
JOHN S. BEIER
ON BEHALF OF
SOUTH CAROLINA PIPELINE CORPORATION
DOCKET NO. 2005-6-G**

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SC PIPELINE CORP
COMMISSIONER

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION.

A. My name is John S. Beier. My office is located at 1426 Main Street, Columbia, South Carolina, and I am Gas Analyst responsible for the administration of the hedging program of South Carolina Pipeline Corporation ("SCPC" or "Company").

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND BUSINESS BACKGROUND.

A. I am a 1992 graduate of the University of South Carolina, where I received a Bachelor of Science Degree in Accounting. Following graduation, I worked for a year and a half in public accounting with the CPA firm C.C. McGregor and Company. I have successfully completed the CPA exam and the work requirements necessary to become a licensed Certified Public Accountant in the State of South Carolina. I am currently a member of the American Institute of Certified Public Accountants and the South Carolina Association of Certified Public Accountants.

In January 1994, I joined SCANA Energy Marketing's Financial Accounting Department. The following fall I began working with SCANA Energy Marketing's Director of Risk Management in hedging the natural gas reserves for SCANA's unregulated oil and gas subsidiary. In the summer of 1995 I accepted the position of Risk Management Analyst for SCPC and conducted the Company's hedging

1 program until December 1999. Over the next four (4) years I served as Supervisor
2 of Gas Accounting and Regulatory for SCPC, and in 2003, I was promoted to my
3 current position – Gas Analyst.

4 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

5 A. The purpose of my testimony is to discuss with the Public Service
6 Commission of South Carolina (“Commission”) SCPC’s hedging program, including
7 the program’s objectives and results.

8 **Q. PLEASE EXPLAIN THE HEDGING PROGRAM AS IMPLEMENTED BY**
9 **SCPC.**

10 A. In order to explain hedging fully it is necessary to first discuss the market in
11 which SCPC competes for its natural gas supplies. Today, the natural gas market is
12 an unregulated, open market that is both dynamic and extremely volatile. Because
13 natural gas is an unregulated commodity, the forces of supply and demand largely
14 determine natural gas prices; therefore, natural gas prices are extremely volatile
15 and can rise and fall rapidly without much notice to gas buyers, such as SCPC.

16 To illustrate the volatile nature of natural gas prices, it is helpful to review the
17 range of gas prices that the market experienced during the 1996 – 2001 time period.
18 From 1996 through the early months of 2000, natural gas prices, though volatile,
19 had remained within a range roughly between \$1.80 and \$3.87 per dekatherm
20 (“Dt”). Prices only rarely went above or below that band, and then not by very
21 much or for very long. Beginning in the spring of 2000, however, prices began to
22 climb. They broke the \$4.00 per Dt threshold around June of 2000 and kept

1 climbing. During the 2000 – 2001 winter, spot gas prices peaked at over \$10.00
2 per Dt during the last days of December 2000 and early days of January 2001, and
3 these spot prices stayed above \$4.50 per Dt through April of 2001.

4 A survey of the market's activity shows that natural gas prices are as
5 volatile today as they were during the 2000-2001 time period. Since December
6 2002, natural gas prices have risen and fallen dramatically trading anywhere
7 between \$4.50 to nearly \$10.00 per Dt, and this trend of rising and falling prices
8 continued into and during the period under review. For example, natural gas
9 prices began the period under review at approximately \$4.90 per Dt, and by the
10 end of January had climbed to \$7.63, which was followed by a retreat to \$5.06 in
11 February 2004. By May, they had risen to \$6.84 per Dt, and in September 2004,
12 natural gas prices fell again reaching a low for the year at \$4.52 per Dt. One
13 month later, however, natural gas prices peaked for the year at \$9.20 per Dt.

14 Because the price of natural gas is so volatile, SCPC is constantly faced
15 with the exposure of extreme price changes in a relatively short period of time,
16 which can translate into unexpected price increases for the Company's customers
17 that in turn may lead to (i) social and economic costs associated with higher utility
18 bills; and (ii) alternative fuel use and declining use per customer. Through its
19 understanding of the volatile nature and dynamic tendencies of the natural gas
20 market, SCPC implemented a hedging program in 1995, with Commission
21 approval, in order to mitigate the impacts of price volatility.

1 SCPC's hedging program is purely a financial program that allows the
2 Company to lock in gas prices at a cost in advance thereby providing price protection
3 in the event that natural gas prices increase. Specifically, SCPC's hedging program
4 uses historical consumption data to determine SCPC's exposure to price volatility in
5 the market and then employs the use of financial instruments – futures and options,
6 which I will discuss later in my testimony – to reduce or mitigate the Company's
7 exposure to this market risk in a reasonable and disciplined manner.

8 **Q. WHY DID SCPC BEGIN ITS HEDGING PROGRAM?**

9 A. SCPC began its hedging program to utilize additional tools available in the
10 public market to help stabilize the price SCPC, and ultimately its customers, pay for
11 natural gas. Over time the pricing of natural gas has undergone significant changes,
12 from the long-term, low cost contracts of the industry's early years, to the long-term
13 take-or-pay price contracts of the 1970s and 1980s, to the current practice of
14 acquiring gas supplies largely through short-term contracts at current market, or
15 "spot" prices. The reliance upon gas supplies based upon "spot market" prices
16 sharply undermines the ability to anticipate, plan for and control changes in gas
17 prices. As a result, many gas utilities have undertaken activities designed to
18 minimize the impact of price volatility. Price volatility is mitigated through the
19 purchase or sale of financial contracts that have been made available through
20 financial markets such as the New York Mercantile Exchange ("NYMEX"), a
21 nationally recognized market which, among other things, facilitates transactions for
22 the purchase and sale of natural gas and financial instruments related thereto.

1 **Q. DESCRIBE THE PRIMARY GOAL OF THE HEDGING PROGRAM.**

2 A. As stated earlier in this testimony, the hedging program was initially
3 presented to and approved by the Commission in 1995. The primary goal of the
4 program, as originally implemented, was to reduce price volatility through the
5 purchase of gas financial instruments at the average market price over the long term;
6 this remains the key goal today. Since inception of the hedging program, SCPC has
7 consistently managed the program in a manner designed to achieve this goal over the
8 long term, under prudent management and with the approval of the Commission.

9 **Q. IS THERE A LIMIT AS TO HOW MUCH THE COMPANY CAN HEDGE?**

10 A. Yes. By Commission Order No. 95-1253, the Commission approved a pilot
11 hedging program for SCPC, which allowed the Company to hedge up to thirty
12 percent (30%) of the system supply. Since 1995, however, there have been several
13 changes in the volumes that SCPC was allowed to hedge. For the first five (5)
14 months of the program, SCPC was allowed to hedge up to thirty percent (30%) of the
15 system supply. Based upon the early performance of the program, the Commission
16 allowed an increase to this volume up to sixty percent (60%), and in July 1997, the
17 Commission approved another increase in the amount allowed under the plan up to
18 seventy-five percent (75%) of system supply.

19 Although the Company was authorized to hedge up to 75% of system
20 supply, in practice SCPC only hedged up to 75% of its estimated gas purchases for
21 firm customers, which is derived by averaging the firm purchases for the previous
22 three-years. This practice remains in effect today and has been formally adopted

1 by the Commission. See Order No. 2004-510, wherein the Commission states that
2 “[t]he hedging program shall continue at the currently approved level of up to 75%
3 of estimated gas purchases for firm customers.” Id. at p. 25.

4 **Q. DOES SCPC ALWAYS HEDGE THE FULL VOLUMES THAT IT IS**
5 **AUTHORIZED BY THE COMMISSION TO HEDGE?**

6 A. No. The model is used as a management guide, decision-making tool, and
7 statistically-based system to assist in making financial hedging decisions and
8 otherwise manage the hedging program. At times, the model may indicate that the
9 level of hedging should be below the authorized level of 75%. Moreover, the Risk
10 Management Committee in an exercise of its oversight responsibilities may decide to
11 implement hedges at levels lower than 75% based upon many factors including, but
12 not limited to, market analysis, consultation with the developer of the model,
13 consultation with other market participants, and other publicly and privately
14 available information.

15 **Q. WHAT MODEL DOES SCPC USE TODAY TO CONDUCT THE HEDGING**
16 **PROGRAM?**

17 A. As a refinement to the hedging program originally instituted in 1995, SCPC
18 adopted in July 1997 a statistically-based system that defines opportunities to lock in
19 prices (through the purchase of futures contracts) as well as to purchase price
20 protection (in the form of call options). This system is known as The Kase
21 HedgeModel™ and was developed by Kase and Company, Inc., a nationally
22 recognized risk management advisory firm specializing in the energy markets. The

1 first month's trading which was conducted using the Kase HedgeModel_{TM} was
2 February 1998.

3 **Q. WHY DOES SCPC EMPLOY THE USE OF THE Kase HedgeModel_{TM}?**

4 A. The Kase HedgeModel_{TM} attempts to stabilize SCPC's price of gas by locking
5 in purchases of futures at prices that statistical analysis indicates may be low
6 compared to market prices. It also protects SCPC's customers from extremely high
7 prices by recommending the purchase of call options should the market threaten a
8 run to higher prices. Further, the Kase HedgeModel_{TM} focuses on long-term
9 opportunities and reduces the risk that SCPC's customers will have to pay extreme
10 prices for natural gas.

11 **Q. HOW DOES THE Kase HedgeModel_{TM} FUNCTION TO ACHIEVE THE**
12 **HEDGING PROGRAM'S GOALS?**

13 A. As stated earlier in this testimony, the primary goal of the hedging program is
14 to reduce price volatility through the purchase of gas financial instruments at the
15 average market price over the long term. The Kase HedgeModel_{TM} functions to
16 assist management to achieve this goal by accomplishing two primary financial
17 objectives: (i) lock-in low prices which have a high probability of disappearing over
18 the long run; and (ii) purchase price protection when prices are rising or threatening
19 to rise in periods of uncertainty, in order to protect against extreme high price levels.

1 **Q. HOW DOES SCPC CURRENTLY ADMINISTER THE HEDGING**
2 **PROGRAM ON A DAILY BASIS?**

3 A. In order to conduct the hedging program, much market research and analysis
4 are necessary. SCPC receives market information from a variety of sources
5 including: (i) three different daily outlooks from brokers, (ii) a weekly publication
6 from Kase and Company, Inc., and (iii) a quarterly publication from Kase and
7 Company, Inc., which also updates the Kase HedgeModel™ software. All of the
8 above sources of information are largely based on technical analysis of the natural
9 gas market.

10 In addition to its analysis of the periodicals stated above, SCPC also
11 participates in a weekly conference call with Kase and Company, Inc. Moreover,
12 SCPC receives real-time market data via satellite to a computer located in my office.
13 This computer contains software that graphs the data and applies technical indicators.

14 A review of the market fundamentals is also necessary to prepare for the
15 market day. This is done by a review of journals such as *Gas Daily*, *Inside F.E.R.C.*,
16 *Hart's Energy Markets*, and *AGA Storage Report*. It is my job each day to take this
17 information, coupled with the strict guidelines set forth in the hedging program, and
18 make financial trading decisions based on all of the data, both technical and
19 fundamental. It should be emphasized that the hedging program is not used to
20 purchase SCPC's physical supply of gas. Accordingly, prior to the expiration of
21 financial instruments each month, SCPC sells that month's open positions so that
22 physical delivery of the commodity is never effectuated.

1 SCANA's Risk Management Committee ("RMC") establishes the goals and
2 objectives of the program, insures that these goals are executed in a disciplined and
3 consistent manner and requires audits to ensure compliance with the program. The
4 results of the program are reported to the RMC at monthly meetings, and to ensure
5 that the rules of the program are consistently followed and controlled. SCANA also
6 has risk management compliance personnel who independently review the trades
7 daily and verify that they comply with the guidelines of the program.

8 **Q. SINCE ADOPTION OF THE Kase HedgeModelTM IN 1998, HAS SCPC**
9 **FURTHER REFINED ITS HEDGING PROGRAM?**

10 A. Yes. Because of the volatile and dynamic tendencies of the natural gas
11 market, SCPC is constantly evaluating its hedging program and making refinements
12 when necessary in order to further protect against price volatility. Through its
13 continued evaluation of its hedging program SCPC has added functionality by
14 implementing the use of certain innovative financial instruments. For example,
15 SCPC now employs the more active use of call options and synthetic calls. (These
16 two terms will be explained later in this testimony.) It should be noted, however,
17 that as the natural gas market continues to evolve, it may become necessary for
18 SCPC to employ the use of additional financial instruments to assist the Company
19 further in mitigating the effects of price volatility.

20 **Q. PLEASE EXPLAIN A FUTURES CONTRACT.**

21 A. A futures contract is an agreement between a buyer and a seller to make or
22 take cash payment for a physical commodity at an agreed price with the actual

1 delivery date and payment to take place at a set date in the future. Traded on the
2 NYMEX, delivery periods, specifications and locations for delivery, quantity, and
3 the timing and method of payment are all standardized. The standardized quantity
4 is 10,000 MMBtu of gas at the standardized place of delivery, Sabine Pipe Line
5 Co.'s Henry Hub in Louisiana. The NYMEX clearinghouse serves as the
6 intermediary between the two parties engaged in the transaction and stands behind
7 the contract guaranteeing performance. The majority of trades, however, do not
8 culminate in delivery of the physical products as futures contracts are used for
9 price discovery and managing price volatility.

10 **Q. PLEASE EXPLAIN AN OPTION CONTRACT.**

11 A. Options give holders the right, but not the obligation, to buy (call option) or
12 sell (put option) at a specified price (called the strike price) over a specified time.
13 A market participant may buy call options to protect its position in the underlying
14 commodity in the event of a price increase during the period preceding the
15 expiration of the option. For example, if a market participant is short (need to
16 buy) the underlying commodity, it may buy a call option to protect itself against a
17 price increase.

18 On the other hand, a market participant may buy put options to protect its
19 position in the underlying commodity in the event of a price decrease during the
20 period preceding the expiration of the option. For example, if a market participant
21 is long the underlying commodity (need to sell), it may buy a put option to protect
22 its position in the event of a price decrease. In sum, an option contract functions

1 much like an insurance policy, serving to protect the market participant against
2 price volatility.

3 **Q. PLEASE EXPLAIN A SYNTHETIC CALL.**

4 A. A synthetic call is a financial instrument available for use as part of SCPC's
5 hedging program. Simply stated, a synthetic call is a financial position created by
6 combining futures contracts and put options. This combination of financial
7 instruments replicates the properties of a call option. If a market participant owns
8 a synthetic call and prices increase beyond the strike price of the put, the put will
9 expire un-exercised and the gain from the sale of the previously purchased futures
10 contract will be used to offset the higher gas cost. If, however, the cost of gas
11 declines, the gain from the sale of the now valuable put will be used to offset the
12 loss on the futures transaction allowing gas to then be purchased in the physical
13 market at the lower price. The synthetic call provides upside price protection while
14 still allowing the hedger to participate in a price decline similar to a call option.
15 The primary advantage of entering into a synthetic call versus the purchase of a
16 call option is that a synthetic call provides the protection of a call at a reduced
17 cost.

18 **Q. HOW DOES SCPC MEASURE THE PERFORMANCE OF THE HEDGING**
19 **PROGRAM?**

20 A. Since the inception of the hedging program, SCPC has reported results as
21 measured against a benchmark, in this case the average market price of natural gas.
22 For purposes of the hedging program, the average market price is defined as the

1 simple average of the NYMEX settle price while the given month is the closest
2 nearby being traded. During the period under review a majority of the positions
3 were purchased with the objective of protecting against a run to very high prices.
4 The market moved against these positions from the time they were in place to the
5 time the average market price was measured. The result was that the average
6 hedging purchase price realized exceeded the average NYMEX market price realized
7 during this PGA period and resulted in gas hedges that were higher than the average
8 NYMEX market price.

9 **Q. WHAT HAS BEEN THE EFFECT OF THE HEDGING PROGRAM ON THE**
10 **WEIGHTED AVERAGE COST OF GAS?**

11 A. During the twelve months ending December 31, 2004, the hedging program
12 added \$2,413,134 to the Weighted Average Cost of Gas ("WACOG"). However,
13 over its life SCPC's hedging program has varied from year to year adding to the
14 WACOG in some years and subtracting from the WACOG in other years. Two
15 recent years reflect subtractions from the WACOG. In Docket No. 2004-6-G, the
16 Company reported to the Commission that its hedging program subtracted
17 \$14,669,999 from the WACOG, and in Docket No. 2003-6-G, SCPC reported that
18 the hedging program had subtracted \$3,595,273 from the WACOG.

19 Since inception the hedging program has added \$6,650,332 to the WACOG
20 through December 31, 2004 or approximately \$0.02 per dekatherm. Exhibit No.
21 ____ (JSB-1) shows the results since inception of the program, and Exhibit No.
22 ____ (JSB-2) shows the results on a per dekatherm basis since inception of the

1 program. However, it is important to remember that the primary goal of SCPC's
2 hedging program is to reduce price volatility through the purchase of gas financial
3 instruments at the average market price over the long term; a goal which is being
4 achieved.

5 **Q. DO YOU HAVE ANY CONCLUDING REMARKS?**

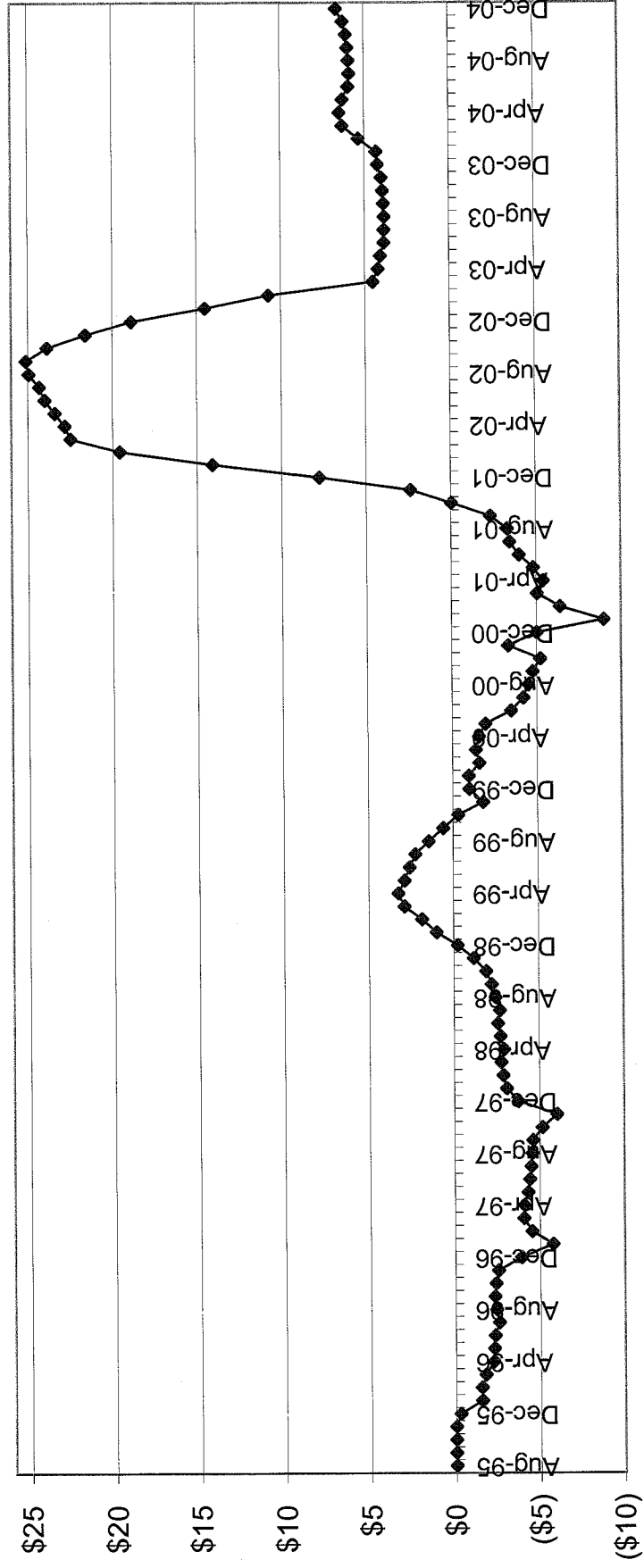
6 A. Yes. While evaluation and further education are continual processes, which
7 may lead to further refinements in the hedging program, SCPC believes that its
8 hedging program is very sound, and no changes are currently anticipated or
9 required. Further, SCPC believes that the program is a prudent tool, useful in
10 reducing volatility associated with the price of gas.

11 Therefore, on behalf of SCPC, I ask that the Commission find that SCPC
12 operated its hedging program in compliance with Commission orders and that
13 SCPC's operation of its hedging program during the period under review was
14 reasonable and prudent. Further, I respectfully request that the Commission allow
15 SCPC to continue operating its hedging program at the presently approved level of
16 up to 75% of estimated gas purchases for firm customers.

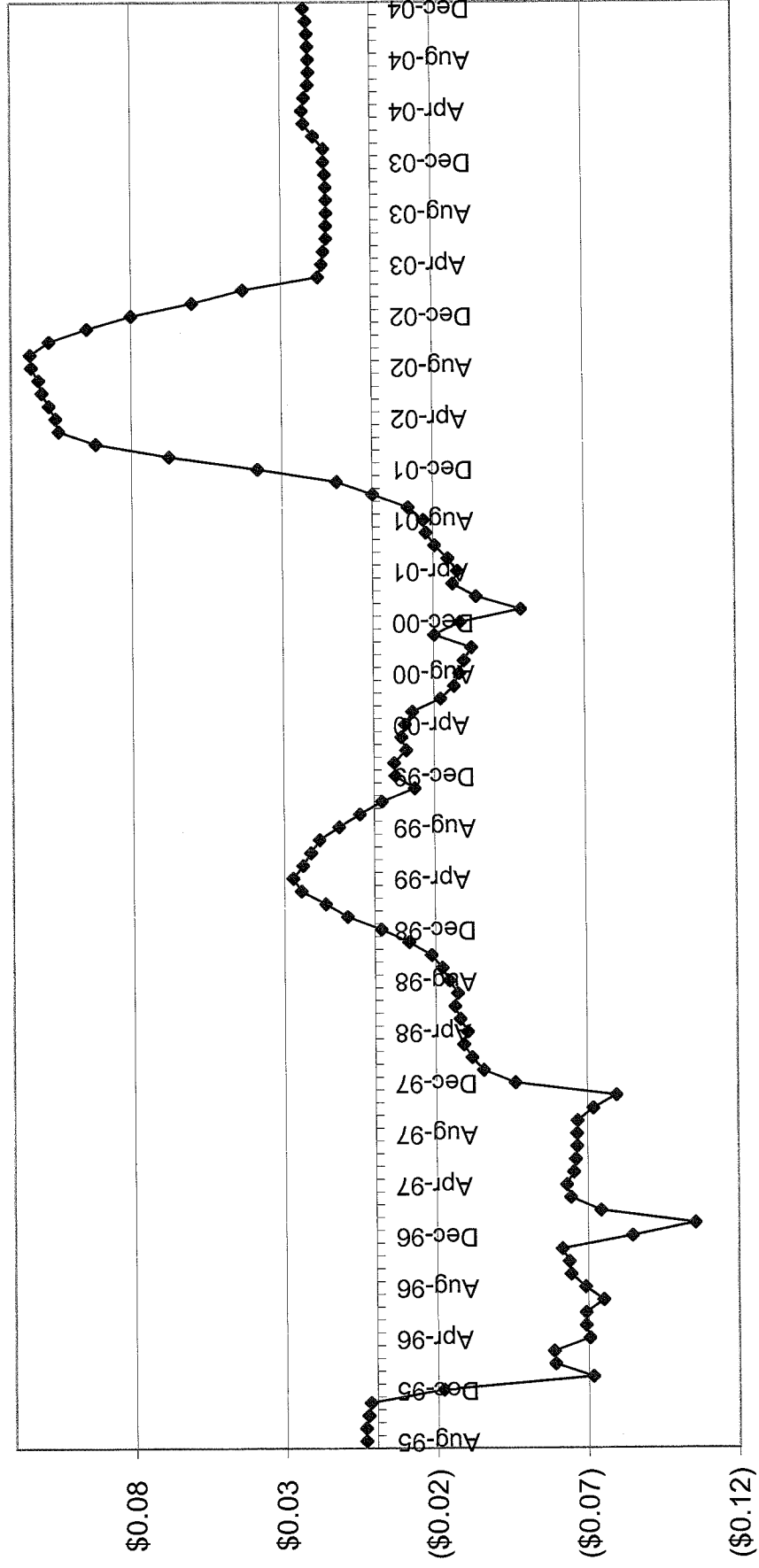
17 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

18 A. Yes.

South Carolina Pipeline Corporation **Hedging Program** **Cumulative Effect on the Cost of Gas** **(Subtraction from) / Addition to the Cost of Gas** **(millions)**



South Carolina Pipeline Corporation Cumulative Effect of Hedging Program Dollars per Dekatherm



**DIRECT TESTIMONY OF
THOMAS R. CONARD
ON BEHALF OF
SOUTH CAROLINA PIPELINE CORPORATION
DOCKET NO. 2005-6-G**

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COMMISSION

Q. PLEASE STATE YOUR NAME AND GIVE YOUR BUSINESS ADDRESS.

A. My name is Thomas R. Conard, and my business address is 105 New Way Road, Columbia, South Carolina 29224.

Q. WHAT IS YOUR CURRENT POSITION WITH SOUTH CAROLINA PIPELINE CORPORATION?

A. I am Assistant Controller at South Carolina Pipeline Corporation ("SCPC" or "Company").

Q. PLEASE DESCRIBE YOUR EDUCATION AND BUSINESS EXPERIENCE BACKGROUND.

A. I am a graduate of the University of South Carolina with a Master of Accountancy degree. I joined South Carolina Electric & Gas Company ("SCE&G") in June 1980 where I held various positions in Accounting, Information Services Technology, Fossil Hydro Business Unit, and Retail Electric Business Unit. In November 1998, I became Manager of Accounting, Finance and Regulatory at SCPC, and in May 2003, I was promoted to my present position – Assistant Controller. I am licensed as a Certified Public Accountant in the State of South Carolina, and I am a member of the American Institute of Certified Public Accountants as well as the South Carolina Association of Certified Public Accountants.

1 **Q. PLEASE SUMMARIZE YOUR DUTIES WITH SCPC.**

2 A. As Assistant Controller, my corporate responsibilities include oversight of the
3 books and records of SCPC, including all accounting and reporting functions.

4 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

5 A. The purpose of my testimony is to inform the South Carolina Public Service
6 Commission ("Commission") of the practices of SCPC with regard to gas cost
7 recovery for the twelve-month period of January 1, 2004 through December 31,
8 2004.

9 **Q. HOW ARE THE BOOKS AND RECORDS OF THE COMPANY**
10 **MAINTAINED?**

11 A. The Company maintains its books and records for regulatory reporting and
12 accounting in conformity with the Uniform System of Accounts as prescribed by the
13 Federal Energy Regulatory Commission and as adopted by the Commission.

14 **Q. BRIEFLY EXPLAIN THE STEPS THE COMPANY TAKES TO INSURE**
15 **THAT ITS BOOKS AND RECORDS ARE ACCURATE AND COMPLETE.**

16 A. SCPC has historically maintained an extensive system of strict internal
17 accounting controls supplemented by formal policies and procedures, including
18 financial oversight by the Audit Committee of the Company's Board of Directors. In
19 addition to SCPC's accounting transactions and reports being audited by SCANA
20 Corporation's ("SCANA") internal auditors, these transactions and reports are
21 audited by SCANA's external auditors, Deloitte & Touche. Deloitte & Touche also
22 audits SCPC's revenue and cost of gas transactions quarterly.

1 In addition to internal and external accounting controls and audits, SCPC has
2 documented all critical controls for compliance with the Sarbanes-Oxley Act. These
3 controls have been reviewed, tested and approved by SCANA personnel as well as
4 Deloitte & Touche.

5 **Q. IS SCPC SUBJECT TO ANY FURTHER OVERSIGHT?**

6 A. Yes. As a regulated utility under the jurisdiction of the Commission, SCPC
7 is subject to reviews by the Commission as well as regular audits conducted by the
8 Office of Regulatory Staff. Further, as a subsidiary of SCANA, the Company is
9 subject to regular audits and reviews by various taxing authorities, such as the
10 Internal Revenue Service and the South Carolina Department of Revenue.
11 Additionally, SCANA files regular reports with the United States Securities and
12 Exchange Commission containing information related to SCPC, which reports are
13 subject to audit and review.

14 **Q. WHAT CLASSES OF CUSTOMERS DOES SCPC SERVE?**

15 A. Overall, SCPC has two major classes of customers: (1) sale for resale and (2)
16 industrial. Both of these customer classes are further divided into firm and
17 interruptible categories, a distinction that I will discuss later in my testimony.

18 **Q. PLEASE DESCRIBE THE SALE FOR RESALE CUSTOMERS.**

19 A. SCPC's sale for resale customers are an investor-owned utility, natural gas
20 authorities, and municipalities that operate gas distribution systems serving
21 residential, commercial, and industrial customers. In essence, the sale for resale
22 customers purchase natural gas from SCPC on a firm or interruptible basis and then

1 resell the purchased gas to its residential, commercial, and industrial customers. In
2 addition to categorizing sale for resale customers as either firm or interruptible,
3 SCPC also classifies its sale for resale customers according to the type of service that
4 the customer receives, such as Distributor Service (“DS-1”), Distributor Interruptible
5 Supplemental Service (“DISS-1”), and Resale Firm Transportation Service (“RFT”).

6 **Q. PLEASE EXPLAIN THE DIFFERENCE BETWEEN A CUSTOMER WHO**
7 **RECEIVES GAS SERVICE ON A FIRM BASIS AND A CUSTOMER WHO**
8 **RECEIVES GAS SERVICE ON AN INTERRUPTIBLE BASIS.**

9 A. Regardless of whether a customer is a sale for resale customer or an industrial
10 customer, SCPC further divides these customers into classes designated as either
11 firm or interruptible. A firm customer is one who receives gas on a priority basis and
12 anticipates no interruptions, under normal circumstances. For example, a firm
13 customer will typically enter into a contract with SCPC for the delivery of a specified
14 volume of gas on a daily basis. Pursuant to the contract with the customer, SCPC is
15 obligated to deliver up to the firm quantity of gas that the customer has requested
16 under the terms of the contract. The amount of gas that SCPC is obligated to deliver
17 under the terms of the contract is called the Maximum Daily Quantity (“MDQ”).

18 The firm customer is obligated to pay a monthly fixed charge for the MDQ
19 regardless of whether the customer accepts delivery of the gas. This charge is called
20 a demand charge. In addition to the demand charge, the customer also pays a charge
21 for all volumes of gas actually delivered to the customer during the course of a given

1 month. This charge is called a commodity charge. I will discuss both of these
2 charges in greater detail later in my testimony.

3 An interruptible customer, on the other hand, is one that receives interruptible
4 gas service from SCPC, meaning that SCPC is not contractually or otherwise
5 obligated to deliver specific volumes of gas within a given period of time. Upon
6 short notice, SCPC possesses the right to “interrupt” the interruptible customer’s gas
7 service, according to the curtailment plan approved by the Commission. In
8 summary, the curtailment plan authorizes SCPC to curtail gas service to its
9 interruptible customers on a priority basis, which is based upon the category of
10 service that the interruptible customer receives.

11 **Q. PLEASE DESCRIBE THE RATES APPROVED BY THE COMMISSION**
12 **AND CHARGED TO SALE FOR RESALE CUSTOMERS FOR FIRM**
13 **SERVICE.**

14 A. SCPC charges for providing firm natural gas service to its sale for resale
15 customers through a two-part demand/commodity rate structure set forth in SCPC’s
16 approved gas tariff. By Commission Order No. 90-729, the Commission approved
17 the methodology underlying the current rate structure. Since 1990, the Commission
18 has approved several modifications to the gas cost recovery formula established by
19 Order No. 90-729.

1 **Q. PLEASE DESCRIBE THIS TWO-PART DEMAND/COMMODITY RATE**
2 **STRUCTURE THAT APPLIES TO SCPC'S SALE FOR RESALE**
3 **CUSTOMERS.**

4 **A.** Under the rate structure approved in Order No. 90-729, SCPC's charges for
5 firm service to sale for resale customers are made through two rate components: a
6 demand charge and a commodity charge.

7 The demand charge is further divided into two (2) components: (i) the
8 Demand Charge Cost of Gas and (ii) the Cost of Service Demand Charge. Pursuant
9 to Section 7(a) of SCPC's tariff, the Demand Charge Cost of Gas for each dekatherm
10 ("Dt") of MDQ is determined monthly on a weighted average basis of all such firm
11 quantities that SCPC is obligated to deliver, i.e., the MDQ. The Demand Charge
12 Cost of Gas includes all demand and capacity charges that SCPC pays suppliers to
13 obtain guaranteed supplies of gas as well as the upstream demand charges and the
14 upstream cost of service demand charges. The second component of the demand
15 charge is called the Cost of Service Demand Charge, which is designed to recover
16 SCPC's fixed costs, excluding its return on investment and associated income taxes.
17 The Cost of Service Demand Charge is set at \$3.5924 per dekatherm of MDQ for
18 sale for resale customers.

19 The commodity charge is simply the monthly Weighted Average Cost of Gas
20 ("WACOG") multiplied by the volumes delivered to the customer plus the approved
21 tariff markup of \$0.0753, also multiplied by the volumes delivered. I will discuss the
22 WACOG calculation in detail later in my testimony.

1 **Q. HOW DOES SCPC CHARGE FOR NATURAL GAS SERVICES TO ITS**
2 **INDUSTRIAL CUSTOMERS?**

3 A. In Commission Order No. 10,391, which was issued in 1957, the Commission
4 authorized the Company to “contract with industrial customers buying directly from
5 the pipeline on terms and conditions mutually satisfactory to the respective parties.”
6 Consequently, all industrial customers have negotiated contracts with SCPC which
7 establish the rates to be charged to the customer. The billing rate for firm industrial
8 customers includes a demand and commodity component. The demand component
9 includes the Demand Charge Cost of Gas based on the customer’s contracted MDQ.
10 The commodity component is the monthly WACOG plus the negotiated contractual
11 markup, multiplied by the volumes of natural gas delivered during the month.

12 The interruptible industrial customers’ billing rate is the monthly WACOG
13 plus the negotiated contractual markup. However, for those industrial customers
14 participating in the Industrial Sales Program-Rider (“ISP-R”), the billing rate is the
15 negotiated competitive sales price which meets the customer’s alternative fuel price.
16 Included in this negotiated competitive sales price is gas cost plus the negotiated
17 contractual markup, which in the aggregate cannot exceed the authorized maximum
18 markup established by Commission Order No. 82-898.

19 **Q. PLEASE EXPLAIN THE WEIGHTED AVERAGE COST OF GAS.**

20 A. In my testimony I have made reference to the Weighted Average Cost of Gas,
21 which is commonly referred to as “WACOG.” Pursuant to Commission orders and
22 SCPC’s tariff, the WACOG is a calculation of the cost of gas which is comprised of

(i) 20,000 Dt of the least expensive daily delivered gas volume, (ii) the actual price paid for gas, including the actual transportation costs incurred for the delivery of the gas to South Carolina and charged to firm and interruptible customers, (iii) weighted average cost of storage gas withdrawals, (iv) direct cost and gains and losses associated with hedging activities, (v) demand costs associated with all reserve firm capacity, (vi) credits associated with released firm capacity, and (vii) gas costs associated with the unaccounted for gas volumes and compressor fuel, excluding any demand charges.

Q. WHAT IS THE IMPACT OF COMMISSION ORDER NO. 94-181 WHICH REQUIRES 20,000 DT A DAY OF THE LEAST EXPENSIVE DELIVERED GAS BE RESERVED FOR THE WACOG?

A. The impact of complying with Commission Order No. 94-181 has been two-fold. First, Order 94-181 has reduced the cost of gas for SCPC's sale for resale customers by reducing the WACOG which, in turn, reduces the commodity charge assessed by SCPC to its sale for resale customers.

The second impact of complying with Order No. 94-181 relates to how it impacts SCPC's ability to earn its approved margins from ISP-R customers. Specifically, reserving 20,000 Dt per day of the least expensive gas to the WACOG adversely impacts the ability of SCPC and its sale for resale customers to compete successfully with alternative fuels of industrial customers, which has resulted in lost financial opportunities. During the twelve months ending December 31, 2004, SCPC lost \$1,228,801 of approved margin as a direct result

1 of this order. For this same time period, the sale for resale customers lost
2 \$359,512 as a direct result of this order. Exhibit No. ____ (TRC-1) documents the
3 adverse impact on margins.

4 **Q. PLEASE DESCRIBE THE PROCEDURES FOLLOWED BY SCPC FOR ITS**
5 **GAS COST RECOVERY.**

6 A. SCPC's gas cost recovery is based on the recovery of delivered gas costs.
7 Delivered gas costs are both the actual purchase price paid for gas and the actual
8 transportation costs incurred for the delivery of the gas to South Carolina. Each
9 month, after certain gas cost assignments are made, actual delivered gas costs are
10 aggregated and divided by the delivered volume. This calculation produces the
11 WACOG. The WACOG calculation includes the following:

- 12 • In compliance with the approved gas tariff, storage gas withdrawals
13 are assigned the weighted average cost of stored gas. A weighted
14 average cost of stored gas is calculated for each separate storage
15 facility utilized by SCPC.
- 16 • In compliance with Order No. 94-181, 20,000 Dt of the least
17 expensive daily delivered gas volume are reserved for the monthly
18 WACOG.
- 19 • In compliance with Order No. 83-873, delivered gas costs are assigned
20 to competitive gas sales made through the ISP-R.

- In compliance with Order No. 95-1253, direct costs and gains and losses associated with hedging activities are included in the monthly WACOG.
- In compliance with Order No. 96-336, the demand costs associated with all reserve firm capacity are included in the monthly WACOG.
- In compliance with Order No. 97-477, credits associated with released firm capacity are included in the monthly WACOG.
- In compliance with Order No. 97-477, gas costs associated with the unaccounted for gas volumes and compressor fuel, excluding any demand charges, are recovered through the WACOG.

Q. HOW ARE COSTS ASSIGNED TO THE INDUSTRIAL SALES PROGRAM RIDER?

A. As Mr. Dozier explained in his testimony, the ISP-R is essential to maintaining the industrial service that is so important to our system and all of our customers. As provided in Order No. 90-729, SCPC and certain of its sale for resale customers are permitted to compete with alternative competitive fuels of industrial customers. Order No. 98-298 clarified that gas-to-gas competition is authorized under the ISP-R program. On a monthly basis, gas costs assigned to competitive sales are determined by reviewing each competitive sales price less the negotiated markup in the service agreement. SCPC's gas cost requirements and those of its sale for resale customers are then aggregated. Gas purchases are reviewed and assigned to meet as nearly as possible these gas cost requirements.

1 In the event that aggregate net revenues received from ISP-R sales exceed
2 aggregate net revenues authorized by the Commission, an ISP-R sales credit is
3 created. This credit is used to lower the Demand Charge Cost of Gas. Thus, in no
4 case does SCPC realize more margin than the contractual markup.

5 **Q. DO YOU HAVE ANY CONCLUDING REMARKS?**

6 A. Yes. SCPC's recovery of its gas costs has been carefully made in
7 compliance with Commission orders and the approved gas tariff. In fact, SCPC's
8 monthly cost of gas calculation results in the precise recovery of actual gas costs
9 incurred by the Company. I therefore respectfully request, on behalf of South
10 Carolina Pipeline Corporation, that the Commission find that the Company's gas
11 cost recovery is in full compliance with SCPC's tariff and Commission Orders.

12 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

13 A. Yes.

South Carolina Pipeline Corporation
Effect of 20,000 DTs/Day Reserved for WACOG
In Compliance with Order No. 94-181

Year	SCPC Margin Loss	Sale-for-resale Margin Loss
12 Months Ending December 1998	\$2,115,865	\$223,358
12 Months Ending December 1999	\$1,842,697	\$270,961
12 Months Ending December 2000	\$2,035,358	\$173,434
15 Months Ending* March 2002	\$6,796,612	\$368,745
9 Months Ending* December 2002	\$2,167,046	\$243,693
12 Months Ending December 2003	\$ 605,642	\$ 74,112
12 Months Ending December 2004	\$1,228,801	\$359,512
Totals	\$16,792,074	\$1,713,762

* Purchased Gas Adjustment ("PGA") proceedings typically review SCPC's policies, practices and gas costs recovery procedures for twelve-month periods. Longer or shorter periods may be reviewed by the Commission, however, as was done for the periods designated above.